

WHAT IS CLAIMED IS:

1. An illumination device, comprising:
a light source; and
5 a planar illuminator for illuminating an illuminated object by emitting light of the light source from one surface, wherein the planar illuminator has a reflection surface, on which minute concavo-convex shapes are substantially randomly formed, and
10 wherein the light irradiated from the light source is diffusively reflected by the reflection surface thereby to perform surface emission.
2. The illumination device according to claim 1,
15 wherein the light source is arranged at a side of the planar illuminator, and wherein a reflection surface of the planar illuminator is a tilted surface that rises as the reflection surface becomes more distant from the light source.
- 20 3. The illumination device according to claim 1, wherein a prism-shaped prism sheet is disposed between the reflection surface of the planar illuminator and an illuminated object.
- 25 4. The illumination device according to claim 3, wherein the prism sheet controls the directivity of at least two light components, which travels in different directions

in plan view.

5 5. The illumination device according to claim 4,
wherein the prism sheet has a prism shape where a plurality
of polypyramid-shaped or conical protrusions is formed.

10 6. The illumination device according to claim 5,
wherein the vertical angle of the polypyramid-shaped or
conical protrusion is in the range of 70° to 110°.

15 7. The illumination device according to claim 5,
wherein the vertical angle of the polypyramid-shaped or
conical protrusion is in the range of 80° to 100°.

20 8. The illumination device according to claim 5,
wherein the protrusion has any one of a quadrangular pyramid,
a hexangular pyramid, and an octangular pyramid.

25 9. The illumination device according to claim 1,
wherein the light source is a cold cathode fluorescence lamp.

30 10. The illumination device according to claim 1,
wherein the light source is an LED or an LED array.

35 11. The illumination device according to claim 1,
wherein the light source comprises a substantially rod-
shaped light guider and a light emitting element disposed at
the end of the longitudinal direction of the light guider,

wherein the light guider introduces light of the light emitting element from one end thereof to the inside thereof and emits the light to an emission surface disposed on one side,

5 wherein a side opposite to the emission surface of the light guider is curved, and

 wherein a plurality of grooves extended to the peripheral direction of the light guider is formed along the curve.

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12. The illumination device according to claim 11, wherein the pitches of the plurality of grooves formed in the light guider gradually become narrower from the side where the light emitting element is disposed and the depths of the
15 grooves gradually become deeper.

13. A liquid crystal display device, wherein the illumination device according to claim 1 is disposed in the rear side of the liquid crystal panel.